



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,142	05/31/2000	Byung Cheon Lee	K-177	2704
34610	7590	01/24/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/584,142	Applicant(s) LEE ET AL.	
	Examiner Shick C Hom	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/15/04 & 12/27/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
 4a) Of the above claim(s) 20 and 24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18, 19, 21-23 and 25 is/are allowed.
- 6) ☒ Claim(s) 1, 26 and 28 is/are rejected.
- 7) ☒ Claim(s) 2-17, 27, 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2666

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-19, 21-23, and 25-29 have been considered but are moot in view of the new ground(s) of rejection.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/15/04 has been entered.

Claim Objections

3. Claims 1, 13, and 26 are objected to because of the following informalities: in claims 1, 13, 26, lines 14, 14, and 10, respectively, spell out acronym CPS-PDU, i.e. delete "CPS-PDU" and insert ---common path sub-layer protocol data

Art Unit: 2666

unit, CPS-PDU---, for clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2666

6. Claims 1, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostman et al. (6,483,838) in view of Subbiah et al. (6,449,276).

Regarding claims 1, 28:

Ostman et al. disclose the apparatus for processing multiple virtual channels comprising: a receiving part which receives an ATM cell through one of a plurality of channels, demultiplexes the received ATM cell based upon a corresponding virtual path/channel information assigned to the ATM cell, and transmits the demultiplexed data to corresponding AAL2 users (see col. 2 line 60 to col. 3 line 6 which recite the cell handling unit receiving ATM cells including a demultiplexer, and col. 3 lines 7-27 and 50-63 which recite the use and determination of parameters in the headers for outgoing ATM cells clearly reads on the use of corresponding virtual path/channel information assigned to the ATM cell).

Regarding claims 1, 26:

Ostman et al. disclose the apparatus for processing multiple virtual channels comprising: a transmitting part which assigns a corresponding virtual path/channel information of a destination to data from a plurality of AAL2 users, which multiplexes the data having the assigned virtual path/channel information into transmission ATM cells based upon the

Art Unit: 2666

corresponding assigned virtual path/channel information (see col. 34 lines 18-63 which recite multiplexing the AAL2 packet in accordance with the outgoing VCI assigned to the ATM cell bearing the AAL2 packet), and which transmits to the corresponding destination a transmission ATM cell through one of a plurality of channels corresponding to the assigned virtual path/channel information (see col. 11 lines 12-32 which recite the transmitters and channels for the ATM cells).

For claims 1, 26, and 28, Ostman et al. disclose all the subject matter of the claimed invention with the exception of wherein the receiving part reads a field of the ATM cell to determined whether a CPS-packet length is 53 bytes or 64 bytes as recited in claims 1, 28; and wherein the transmitting part comprises an AAL2 transmitter which multiplies the data from the plurality of AAL2 users to generate a CPS-PDU, and assigns a routing information to the generated CPS-PDU; and wherein the routing information includes a field indicating whether a CPS-packet length is 53 bytes or a length different than 53 bytes as in claims 1, 26.

Subbiah et al. from the same or similar fields of endeavor teach that it is known to provide wherein the receiving part reads a field of the ATM cell to determined whether a CPS-packet length is 53 bytes or 64 bytes (see col. 3 lines 17-26 which

Art Unit: 2666

recite the step of determining the size for the ATM cell, col. 4 line 55 to col. 5 line 10 which recite the CPS-packet size being 64 bytes and the use of LI field to indicate the length of the packet) as in claims 1, 28; and wherein the transmitting part comprises an AAL2 transmitter which multiplies the data from the plurality of AAL2 users to generate a CPS-PDU, and assigns a routing information to the generated CPS-PDU and wherein the routing information includes a field indicating whether a CPS-packet length is 53 bytes or a length different than 53 bytes (see col. 5 lines 11-33 which recite the CPS-PDU including the sequence number, which reads on routing information, and col. 4 line 55 to col. 5 line 10 which recite the use of LI field to indicate the length of the packet) as in claims 1, 26. Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the receiving part reads a field of the ATM cell to determined whether a CPS-packet length is 53 bytes or 64 bytes and wherein the transmitting part comprises an AAL2 transmitter which multiplies the data from the plurality of AAL2 users to generate a CPS-PDU, and assigns a routing information to the generated CPS-PDU; and wherein the routing information includes a field indicating whether a CPS-packet length is 53 bytes or a length different than 53 bytes as taught by Subbiah et al. in the

Art Unit: 2666

communications apparatus of Ostman et al. The receiving part reading a field of the ATM cell to determined whether a CPS-packet length is 53 bytes or 64 bytes can be implemented by connecting the means for determining the CPS-packet length of Subbiah et al. into receiver of Ostman et al. and providing the length field indicator LI of Subbiah et al. in the ATM cell header of Ostman et al. The transmitting part comprises an AAL2 transmitter which multiplies the data from the plurality of AAL2 users to generate a CPS-PDU, and assigns a routing information to the generated CPS-PDU and wherein the routing information includes a field indicating whether a CPS-packet length is 53 bytes or a length different than 53 bytes can be implemented by connecting the means for assigning the CPS-packet length of Subbiah et al. into transmitter of Ostman et al. and providing the length field indicator LI of Subbiah et al. in the ATM cell header of Ostman et al. The motivation for providing the receiving part reading a field of the ATM cell to determined whether a CPS-packet length is 53 bytes or 64 bytes and transmitting part comprises an AAL2 transmitter which multiplies the data from the plurality of AAL2 users to generate a CPS-PDU, and assigns a routing information to the generated CPS-PDU and wherein the routing information includes a field indicating whether a CPS-packet length is 53 bytes or a length different

Art Unit: 2666

than 53 bytes as taught by Subbiah et al. in the communication apparatus of Ostman et al. being that it provides more efficiency for switching ATM cells to AAL2 users since the system can pack variable size packets into ATM cells at the transmitting end and receive specific sized packets for specific AAL2 users at the receiving end.

Allowable Subject Matter

7. Claims 2-12, 27, and 29 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 13-17 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

9. Claims 18-19, 21-23 and 25 are allowed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dempo discloses AAL2 packet exchange device.


Art Unit: 2666

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 572-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 572-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH


DANG TON
PRIMARY EXAMINER